

# T e c h n o l o g y   &   P l a n n i n g

## *Is Your Financial Plan Worth the Paper It's Printed On?*

**Scenario Them**



**ScenarioNow**



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# Is Your Financial Plan Worth the Paper It's Written On?

Since the mid-1980's when financial planning software was first popularized, advisors have used them to make projections for clients, given them a printed plan, and used this as the basis for recommendations. But...

**Are those financial plans worth the paper they're printed on?** For millions of financial planning clients who have had plans developed over the last 15 years the answer is – probably not. Imagine for a moment that you're the client. How would you feel... if all the assumptions turned out to be accurate, but the results were dramatically different? Many financial clients (and their advisors) will be in for a surprise, when they see the results of their plans played out in the real world.

**What's the problem?** Until recently almost all financial planning software programs have included a simplistic mathematical assumption that practically guaranteed inaccurate results (and inappropriate recommendations). The culprit? *Average returns*. The results of plans created with them can have serious repercussions for both the client and the advisor.

**The Flaw of Averages.** Let's take an example. John and Mary come to you for a plan. They have \$1 million dollars in investments. They want \$100,000 in income per year. You have a crystal ball that tells you with absolute certainty that during the next 25 years, the market will average 12% per year. You create their plan with this assumption. You invest the money in an index fund and set up systematic withdrawals of \$100k per year to provide for their income. In concept, they should maintain their principal, live off the interest, and put a little away. You send them off with plan in hand to live a happy life in retirement.

*What Happens?* Let's fast-forward 25 years. You meet John and Mary on the street – living in a refrigerator box. They've been here since last year, when they ran out of money. What happened? Did they spend foolishly? Did they change their investment strategy? Did they have health issues or other emergencies that forced additional spending? What did they do wrong? Absolutely nothing!! In fact, it all went according to plan.

*Bad News.* The problem was that the plan did not take into account the impact of volatility in the market. Your projections would have been correct, if interest rates never went up or down – which doesn't happen in the real world. Interestingly, for the 25 years since you last saw them, the market averaged 12% - exactly as you had suggested. Here's the problem: During the first few years after they retired, interest rates were below 12%... and this is the killer. The systematic withdrawal of \$100,000 caused them to dip into principal – a loss from which they would never recover. Over time, they would either have to reduce their income, change their strategy, or run out of money.

**More Bad News.** Retirement illustrations created with average returns may result in the most significant liability issue that financial advisors and companies face in the next 10 years. In our example, let's suppose that John and Mary's daughter just married a young attorney. He thinks they have a case to come back and sue you and your company. Why? Because they did everything you suggested. They have a printed plan to prove it. The projections were on target. But instead of living on Easy Street, they lost everything they own. Who's to blame? Who do you think the courts will blame? I think we'll find financial advisors and companies will be held to a higher standard

*What's the lesson?* When you're making additions to or withdrawals from investments, average returns are at best meaningless, and at worst lead to potentially critical errors in strategy. Advisors who use them are providing written documentation of financial results that are guaranteed not to work and

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do a disservice to both themselves and their customers. But almost all current financial software programs on the market still apply this concept to their projections.

**Is there anything we can do about this?** Yes. (1) You have to be able to illustrate scenarios that demonstrate variable returns on investments (the volatility issue). (2) You have to be able to illustrate the difference this has during periods of saving and spending (the cash flow issue).

**The Cash Flow Issue.** The following two points need to be understood by every financial client and advisor:

- *When you use average returns the same investment strategy works for either saving or spending.*
- *When you use variable returns, the investment strategies for saving and spending are opposites.*

So, is dollar cost averaging good or bad? (I find it frightening that most people, clients and advisors, don't know the answer to this question.) If you project with average returns it makes no difference, since dollar cost averaging feeds off market ups and downs (i.e. variable returns). When you use variable returns, you get two different answers: When you're working and saving money – dollar cost averaging is good, *but...* when you're retired and spending money – dollar cost averaging is bad. Interesting math... but, why is this important? Because, as a result of not knowing this, many clients (and advisors) take systematic withdrawals to provide income in retirement – with disastrous results. Take a look at the following example.

**Saving.** Systematic Steve saves \$100 per month. The mutual fund he buys varies in price month to month. In January, it sells at \$10, so gets 10 units. In February, it sells at \$5, so he gets 20 units. In March, it's at \$20, so he gets 5 units. Because Steve was saving, dollar cost averaging worked for him. When shares were less expensive, he bought more. When they were more expensive, he bought less – automatically. Smart buying!

Month	Money Saved/Spent	Price Per Share	Shares Purchased/Sold
January	\$100	\$10	10
February	\$100	\$5 (lowest price)	20 (most shares)
March	\$100	\$20 (highest price)	5 (least shares)

**Spending.** Now Steve retires and needs \$100 per month and starts systematic withdrawals. Guess what happens? The same thing – in reverse! Instead of buying low, he sells low – the exact opposite of what he wants to happen. Because Steve is spending, dollar cost averaging is working against him. He guarantees that he sells at the worst possible time! By definition, dollar cost averaging provides the best possible results while saving, and the worst possible results while spending.

**So What Strategy Makes Sense For Retirement?** The example above implies that the optimal strategies involved in saving or spending periods are opposites. Does this then mean that maximum volatility is best during saving years and minimum (zero) volatility is best during retirement? NO! While there may be a good argument for increased volatility during savings years, the retirement issue is not that simple.

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*For Example:* Let's suppose that Bill has \$1M in growth stocks and needs \$50k per year income. He may be, on the surface, a candidate for diversification into a blend of stocks, bonds, cash, etc. to give him a more 'balanced' portfolio. But suppose that Bill has a \$30,000 pension and that the growth stocks pay a 2% annual cash dividend. Bill's cash needs have been addressed without having to liquidate the assets. So which investment strategy above should we apply, saving or spending? In Bill's case, he may be better off simply leaving the money in the growth stocks, because he doesn't need the cash.

***It's Not About Volatility, It's About Income.*** Managing investments in during retirement is not about minimizing volatility on all your investments; it's about managing the amount of income that comes from the sale of variable investments; and it's about avoiding "selling low".

**The Volatility Issue.** How Can We Illustrate Variable Returns? The problem is that of the more than 300 financial planning programs on the market today, only a handful allows you to illustrate variable returns on investments and retirement assets. Of the ones that do, there are two primary approaches: *Monte Carlo Simulation* and *Scenario Planning*.

**Is Monte Carlo Simulation the Answer?** Monte Carlo Simulation (MCS) provides one way to help illustrate variable returns. MCS is a process that runs thousands of calculations to illustrate a potential range of possibilities. During the last 5 years, MCS has become a fashionable addition to financial software. So much so, in fact, that many people have anointed it as a 'must have' feature for financial planning. But before we simply accept that Monte Carlo is the solution and move on, let's make sure we're asking the right question.

*Does it help us understand 'the big picture' or just part of it?* Applying MCS to our problem, you (should) get a sense of the likelihood of your success. Sounds simple enough. But while this offers a significant improvement over simple average returns, it's not enough and may introduce new problems.

Monte Carlo Simulation is very powerful – but it is just a 'tool'. If the way it's used is incomplete or simplistic, you simply get more useless answers. Even worse, now you have justification to follow them. Because the tool appears very precise and technical, it lures people, especially non-technical people, into a false sense of security, especially when it's hyped by PhD's, Nobel Prize laureates, and the press. Monte Carlo is only half the answer, because volatility is only half the problem.

For example, Financial Engines is a popular tool for projecting retirement probabilities with Monte Carlo. But they only apply probabilities to pre-retirement savings. The program assumes retirement standard of living is provided by an annuity stream of income (i.e. a fixed rate of return). Not only does that solve only half rather than the "full" problem, it implies an inappropriate and dangerous message – that volatility after retirement isn't as important. This is not just an important issue, it is the key to proper retirement planning. Without appropriate modeling of the cash flow issue, Monte Carlo calculations are not simply wrong, they are misleading.

**Scenario Planning.** Many programs suggest the ability to illustrate scenarios or 'what-ifs', but very few allow people to do real scenario planning. Scenario planning involves walking people through multiple possible futures (worst case, best case, dream cases, etc.) and looking at potential results. Scenario planning supports a 'possibilities' approach (What can I have?) rather than a deterministic approach (You know what you want.) Illustrating cash flow retirement scenarios with variable returns is very powerful way to help people see 'the big picture'.

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How does this compare to Monte Carlo? Why settle for a few scenarios, when you can quickly run 2000 with Monte Carlo? (1) Because it doesn't take 2000 scenarios to identify the key sensitivities – the things that really matter – in a person's financial plan. (2) A scenario approach is less technical and easier to understand, which helps people make decisions and take action.

**So what's the solution?** Retirement plans that do not take into account variable returns in their calculations lead people to potentially disastrous recommendations. Few customers are aware of this. To provide real value to customers and avoid potential liability issues, advisors must understand this issue and effectively communicate it to them.

So what tools should you use to illustrate this? When you select software to help clients make financial projections, you must have the ability to:

- Demonstrate variable as well as straight line projections
- Illustrate either retirement saving scenarios or spending scenarios (or both)

Very few programs on the market meet these two criteria\*. We believe it is not only worth your time and effort to find programs that will do both, but it is imperative. The ones that do, provide two different basis approaches.

**Monte Carlo Simulation** is a powerful tool to help illustrate a range of possible futures, simply adding it to a financial calculator does not solve the problem. Without taking in the cash flow issues that span a client's entire life – both retirement saving and spending, it may lead to precise answers for inappropriate solutions. If you're going to use Monte Carlo Simulation, half a Monte isn't enough; you must use a model that gives you the "full" Monte.

A **Scenario Planning** approach provides an alternative to Monte Carlo that may be appropriate for many clients. It will not generate the probability tables that a Monte Carlo program does, but it's extremely powerful to quickly illustrate the issues that make a difference and get people to act.

Both of these approaches are effective and provide better more meaningful results than programs with average returns. If the plans that you create are going to be worth more than the paper they're printed on, it's critical to understand these issues and communicate them to clients. Your client's future – and yours – depends on it.

**RetireNow** is a powerful program for retirement/wealth planning that a Scenario Planning rather than a Monte Carlo approach to retirement planning. RetireNow lets you apply variable returns on over 100 individual investments, not just asset classes. RetireNow is a power tool, not just for calculations, but for illustrating the concepts to clients. It also lets you model, and quickly illustrate the impact on both savings **and** spending. **RetireNow** is a registered trademark of ScenarioNow Inc.